REMARKS/ARGUMENTS

Reconsideration and allowance in view of the foregoing amendment and the following remarks are respectfully requested.

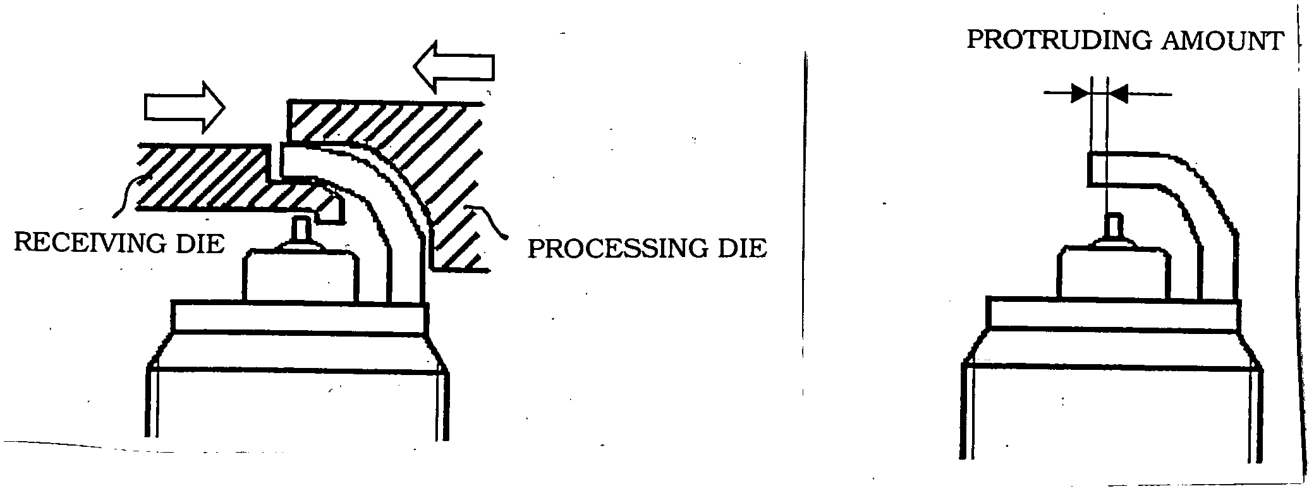
Claims 1-4 remain pending.

Original claims 1, 2 and 4 were rejected under 35 USC 102(e) as being anticipated by Fujita. Applicant respectfully traverses this rejection.

Claim 1 has been amended above to recite more specifically that "a protruding amount" of the distal end surface of the other (distal) end of the ground electrode is regulated by a receiving die, wherein the protruding amount is defined as a distance between said distal end surface of said ground electrode and an imaginary axial extension of said center electrode, measured in said direction perpendicular to said axial line of said center electrode", and further that "the distal end surface of the ground electrode, in contact with the receiving die, is protruded from the center electrode by said protruding amount." The foregoing features of an example embodiment of the invention, now more specifically recited in claim 1, are supported by the original specification including in particular page 7, lines 3-6.

Thus, the present invention provides a manufacturing method of a spark plug having a center electrode and a ground electrode, wherein a pressing die is used to bend the ground electrode and a receiving die is used to regulate a protruding amount of the distal end of the ground electrode. The protruding amount is defined as a distance between the distal end surface of the ground electrode bent by the pressing die and an imaginary axial extension of the center electrode, measured in a direction perpendicular to the axial line of the center electrode. In the provisional bending step, the ground electrode is provisionally bent in cooperation with the present die and the receiving die so as to be protruded from the center electrode by the protruding amount. Accordingly, the ground electrode can be accurately bent so as to be protruded from the center electrode by a desired protruding amount in cooperation with the pressing die and the receiving die.

An example cooperation of a pressing die and a receiving die as well as the protruding amount as defined in claim 1 are schematically depicted below.



Anticipation under Section 102 of the Patent Act requires that a prior art reference disclose every claim element of the claimed invention. See, e.g., Orthokinetics, Inc. v. Safety Travel Chairs, Inc., 806 F.2d 1565, 1574 (Fed. Cir. 1986). While other references may be used to interpret an allegedly anticipating reference, anticipation must be found in a single reference. See, e.g., Studiengesellschaft Kohle, G.m.b.H. v. Dart Indus., Inc., 726 F.2d 724, 726-27 (Fed. Cir. 1984). The absence of any element of the claim from the cited reference negates anticipation. See, e.g., Structural Rubber Prods. Co. v. Park Rubber Co., 749 F.2d 707, 715 (Fed. Cir. 1984). Anticipation is not shown even if the differences between the claims and the prior art reference are insubstantial and the missing elements could be supplied by the knowledge of one skilled in the art. See, e.g., Structural Rubber Prods., 749 F.2d at 716-17.

Fujita teaches a method and apparatus for making a spark plug having a center electrode and a ground electrode. According to the Fujita method, a sensor 1 measures a position of an end of a metal tip (W1) formed on an end of the center electrode 2 (see column 5, lines 40-42). After determining the position of the metal tip W1, a metal strip W2 of the ground electrode is preliminarily bent. In this preliminary bending, a spacer 3 is placed above the metal tip W1, without touching the tip W1, by referring to positional information of the metal tip W1 (column 5, lines 55-65). The metal strip W2 is bent along a rounded nose portion 3a of the spacer 3 (see column 6, lines 6-16). After the preliminary bending, the sensor 1 determines the position of a preliminary bent metal strip W2 or of an end surface of a metal shell W3. After determining the position of the preliminary bent metal strip, a further bending degree of the preliminary bent metal strip W2 is determined by comparing with positional data of a spark-erosion metal tip S2 (see column 6, lines 65-67- column 7, lines 1-5). Therefore, a gap-distance can be adjusted to be within a required value for high performance spark plugs based on the positional information data (see column 7, lines 50-52).

Fujita does not teach or suggest, however, regulation of a protrusion of the ground electrode beyond the center electrode by an amount predetermined by a receiving die. Therefore, Fujita does not anticipate nor render obvious the method of claim 1.

In view of the foregoing, it is respectfully submitted that the invention of amended claim 1 is not anticipated by nor obvious from Fujita.

For all the reasons advanced above, reconsideration and withdrawal of the Examiner's rejection of claims 1, 2 and 4 is requested.

Claim 3 was rejected under 35 USC 103(a) as being unpatentable over Fujita in view of Tanaka et al. Applicant respectfully traverses this rejection.

Claim 3 is submitted to be patentable over Fujita for the reasons advanced above. The Examiner's further reliance on Tanaka does not overcome the deficiencies of Fujita noted above. It is therefore respectfully submitted that claim 3 is also allowable over the prior art of record.

All objections and rejections having been addressed, it is respectfully submitted that the present application is in condition for allowance and an early Notice to that effect is earnestly solicited.

Respectfully submitted,

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